TECHNICAL BULLETIN

JANUARY 2008

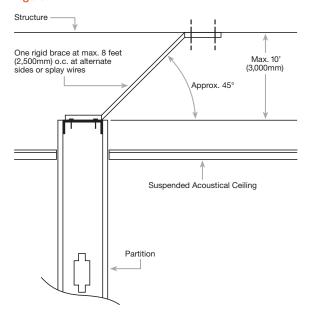
20.100

Bracing Options for Non-Load Bearing Partitions

Requirements for bracing of non-load bearing partitions over 6 feet in height shall resist the minimum of a 5 (psf) transverse load, per the International Building Code (IBC) and the California Building Code (CBC). In addition, partitions in seismic zones shall meet IBC section 1613. These partitions shall resist the effects of seismic motions in accordance with ASCE standard 7-05 (American Society of Civil Engineers). TSIB Technical Bulletin 20.100 provides guidance for bracing non-load bearing partitions to comply with 2006 IBC code requirements, ASCE and OSHPD (Office of Statewide Health Planning and Development) Title 24 Part 2, Volume 2 (structural).*

ASCE 7-05 (*section 13.5.8.1*) Partitions that are tied to a lay-in acoustical ceiling suspension system and all partitions greater than 6 feet in height, shall be laterally braced to the building structure. Such bracing shall be independent of the ceiling splay wire bracing.

Figure A



PARTITION BRACING OPTIONS INCLUDE:

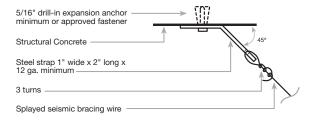
- A. Rigid bracing (metal studs) at maximum 8 feet on center (alternate sides). Minimum 25 gauge (18 mils) studs installed at approximately 45° angle. For OSHPD projects maximum spacing shall be 6 feet on center, all other items remain equal. (See Figure A)
- B. A perpendicular intersecting wall may substitute for a rigid brace.
- C. Splay wires (two 12 gauge in opposite directions and perpendicular to partition) at a maximum 8 feet on center. (OSHPD 6 feet maximum).
- D. Engineering approval to use the suspension system of a lay-in ceiling for partition support.
- E. Support by a suspended ceiling with gypsum board or plaster. Attachment must be to hat channels at a minimum 16 inches on center. Gypsum board/plaster ceiling must extend from load bearing wall to load bearing wall.

Relying on attachment to an acoustical lay-in suspended ceiling system is not allowed unless the suspension system is specifically designed for by an engineer. Temporary attachment of the partition for alignment purposes is acceptable until permanent bracing is installed. Bracing to "hard" lid ceilings may be acceptable (see item E above). (continued on back)

*All of the options listed herein are limited to partitions weighing no more than 15 psf and the braced partition height does not exceed 10 feet. Plenum heights are limited to 10 feet.

2 x Wood Joist. See Struct. 3"x1/4" diameter closed eye screw with 1" min. penetration into wood. No. 12 ga. hanger or splay wire where occurs

Figure C Splay Wires



Rigid Brace

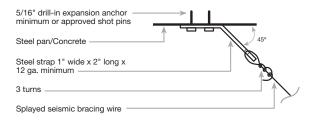
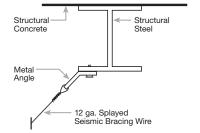


Figure D



ATTACHMENT TO STRUCTURE:

WOOD:

Splay wires: ¹/₄ inch diameter x ₃ inch long closed-eye wood screws. Screws may be placed at any location on the wood member that provides adequate support and hold. Screws must penetrate wood a minimum of 1 inch. (See Figure B)

Rigid Brace: Minimum two No. 8 screws that penetrate a minimum 3/4 inch into wood and fully seated.

CONCRETE:

Splay wires: 5/16 inch drill in expansion anchor securing a metal angle. (See Figure C)

Rigid Brace: (2) 5/16 inch drill-in expansion anchors or approved shot pins.

STEEL:

(2) Pre-drilled or approved shot pin fasteners. (See Figure D)

ATTACHMENT TO PARTITION:

Splay wires: 1/4 inch diameter eye bolt securely attached through partition top track.

Rigid Brace: Attach to top track of partition with two No. 8 S-screws.

Other attachment and bracing methods may be considered with approval from a licensed engineer.

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